



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,181	01/23/2004	Sachin Navin Chheda	200314086-1	7860
22879	7590	06/14/2007	EXAMINER	
HEWLETT PACKARD COMPANY			VIDAYATHIL, TRESA V	
P O BOX 272400, 3404 E. HARMONY ROAD			ART UNIT	PAPER NUMBER
INTELLECTUAL PROPERTY ADMINISTRATION			3746	
FORT COLLINS, CO 80527-2400				

MAIL DATE	DELIVERY MODE
06/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,181	CHHEDA ET AL.	
	Examiner	Art Unit	
	Tresa V. Vidayathil	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 January 2004 and 12 March 2007 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Specification

1. As noted in the previous Office Action sent on December 8, 2006, the abstract of the disclosure is objected to because the abstract should be a summary of the entire invention, including the aspects of the invention that make it new in the art. See Section #5 below. Correction is required. See 37 CFR 1.72 and MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following 35 U.S.C. § 103 rejections are the same § 103 rejections from the previous Office Action sent on December 8, 2006. They were not withdrawn. See Section #10 below.

3. Claims 1- 9, 11-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla 6,791,836 in view of Kimura 5,414,591.

Cipolla discloses: 1) first fan 104 coupled with first motor 103, 2) a second fan 104 coupled with a second motor 103, 3) a control system (148, 136, 116, 22, 114, and 120) coupled with both motors 103 and 104, 4) first and second motors of variable speed (col. 4, ll. 59-64), 5) a motor performance monitoring system (116 and 114) determining a performance metric 114 for each motor, 6) first and second tachometers 114 determining the rotational speed of the first and second motors respectively (col. 4, ll. 44-48), 7) a comparator 116 for comparing measured performance metrics of each motor with pre-defined parameters (col. 5, ll. 1-12), 8) a power control subsystem 120,

Art Unit: 3746

9) a controller 116, and 10) controller 116 is coupled with power control subsystem 120 and generates a command to power control subsystem 120 in response to a signal from the comparator 116 (col., II. 59-64 and col. 5, II. 1-12).

However, Cipolla does not teach the following limitations that are taught by Kimura: a heat sink or heat dissipating device 18, a duct system 2 conveying air flow to heat sink 18, first and second current monitoring devices 21 determining the amount of current used by the first and second motors respectively (col. 14, I. 49), operation of plurality of fan motors at a first operating speed (col. 5, II. 23-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of the above teaching of Kimura in order to improve the cooling efficiency of the system (Kimura, col. 9, II. 49-53 and col. 10, II. 65 – col. 11, II. 1) and detect another operational condition of the fan (col. 15, II. 23-24).

Regarding the limitations that the first motor and second motor are removably couplable with said fan cooling system and disengaging the first fan motor, making elements of an apparatus separable fails to patentably distinguish this invention over the prior art. (See MPEP § 2144.04.V.C). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the motor removable from the fan cooling system.

Regarding the limitation that the controller causes said power control subsystem to dynamically alter the operating speed of said second fan when said performance metric of said first motor exceeds said pre-defined parameter, Cipolla teaches that controller 116 causes power control subsystem 120 to dynamically alter the operating

speed of one or more fans based on pre-defined parameters (col. 4, ll. 59-64 and col. 5, ll. 1-12). Kimura teaches that the operating speed of a second fan is altered when the first motor exceeds a performance metric, where the performance metric is current (col. 15, ll. 23 –53). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of Kimura to detect another operational condition of the fan (Kimura, col. 15, ll. 23-24).

4. Claims 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cipolla in view of Kimura as applied in Claims 1, 4, and 11 above, and further in view of Olarig 20030112600.

Cipolla in view of Kimura discloses all the limitations substantially as claimed except for the state machine (Page 2, Paragraph 26, ll. 3-5) taught by Olarig. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cipolla in view of Kimura and further in view of Olarig in order to substitute a controller with a state machine (Olarig, Page 2, Paragraphs 23 – 26).

Response to Amendment

5. The reply filed on March 12, 2007 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): The abstract was not amended as requested in section #2 of the Office Action sent on December 8, 2006. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given the response time from the date of mailing of this Office Action, as noted on the Office Action Summary Sheet, to supply the correction.

Art Unit: 3746

6. The other amendments to the specification have been received, and due to these amendments, the Examiner withdraws the objections to the specification indicated in section #3 of the Office Action sent on December 8, 2006.
7. Amendments to the drawing and claims have been received, and due to these amendments, the Examiner withdraws the objections to the drawings and the claims.
8. The amendment to claim 17 was received, and due to this amendment, the Examiner withdraws the 35 U.S.C. § 112, second paragraph rejection of claim 17.

Response to Arguments

9. Applicant's arguments, filed March 12, 2007, with respect to the 35 U.S.C. § 112, second paragraph rejection of claim 11 (p. 11, II. 1-7) have been fully considered and are persuasive. From this point forward, the Examiner will consider the preamble of claim 11 as limiting. The 35 U.S.C. § 112, second paragraph rejection of claim 11 has been withdrawn.

10. Applicant's arguments filed on March 12, 2007, with respect to the 35 U.S.C. § 103 have been fully considered but they are not persuasive.

Applicant first argues that the combination of Cipolla with Kimura was inappropriate because Cipolla teaches active control of the fans and Kimura teaches passive control of the fans. Even though Kimura as a whole does not teach the same means of electronics cooling as Cipolla, the features of Kimura used in combination with Cipolla can be used in both inventions for the same purpose (See motivation presented on p. 5 of the Office action sent on December 8, 2006). Therefore, Kimura

does not teach away from the combination with Cipolla. Kimura only teaches something different. In addition, contrary to the applicant's argument that Kimura only teaches passive cooling, one embodiment of Kimura does in fact teach active cooling in that speeds of adjacent fans are increased to compensate for an inoperable fan (Kimura, col. 15, ll. 36-53).

Applicant also noted that Kimura provides a detector detecting the operational condition of a fan by providing a signal transmission in one direction (Applicant's Arguments and Remarks, filed March 2, 2007, p. 5, ll. 6-11). It is unclear what issue this statement was intended to address. Kimura is used by the Examiner in part to reject the limitation "first and second current monitoring devices determining the amount of current used by the first and second motors respectively." This limitation does not appear to require transmission of information in more than one direction.

Applicant then argues that the Examiner's use of MPEP 2144.04.V.C involving the obviousness of making parts separable was inappropriate because the facts of *In re Dulberg*, 289 F.2d 522 (CCPA 1961) are not sufficiently similar to the instant application. However, MPEP 2144.04.V.C also states that the court in Dulberg held that "if it were considered desirable for any reason to obtain access to the end of the [the prior art's] holder to which the cap is applied, it would be obvious to make the cap removable for that purpose." In the instant application, it is desirable to obtain access to the fan in order to engage a functioning motor. Therefore, it is obvious to make the motor separable from the fan assembly because it is desirable to obtain access to the fan in order to exchange a functioning motor for an inoperable one.

Applicant finally argues that the combination of Cipolla in view of Kimura and further in view of Olarig was inappropriate for the same reasons Cipolla in view of Kimura was inappropriate. However, the Examiner finds Cipolla in view of Kimura to be an appropriate combination. Therefore, Cipolla in view of Kimura and further in view of Olarig is an appropriate combination.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tresa V. Vidayathil whose telephone number is (571) 272-3436. The examiner can normally be reached on 9AM - 5:30PM, Monday - Friday.

Art Unit: 3746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Anthony Stashick
Supervisory Primary Examiner
Art Unit 3746


T.V. Vidayathil